

CLAIMS:

1. A method for controlling a graphical element on a display through manipulation of an input device, the method comprising:

- a measuring step measuring a plurality of components of a magnetic field related to an orientation of the input device, and

5 - a control step controlling the graphical element on the basis of the plurality of components,

characterised in that the control step includes a calculation step calculating a first signal on the basis of at least two of the plurality of components, the first signal representing translation movement of the graphical element in a first direction on the display.

10 2. A method as claimed in Claim 1, wherein the calculation step further includes calculating a second signal on the basis of at least two of the plurality of components, at least one of the at least two being different from the at least two components for calculating the first signal, the second signal representing translation movement of the graphical element in a second direction on the display.

15 3. A method as claimed in Claim 1, wherein the control step includes an initialisation step measuring reference values of the plurality of components with respect to the orientation of the input device at the instant of executing the initialisation step, and wherein the calculating step calculates the first signal on the basis of a difference between current values and reference values of respective ones of the at least two of the plurality of components.

20 4. A method as claimed in Claim 3, wherein the measuring step measures three components of the magnetic field thus measuring the strength of the magnetic field, and wherein the initialisation step is executed if the difference in strength between two successive executions of the measuring step is larger than a predetermined threshold.

25 5. A method as claimed in Claim 1, wherein the magnetic field is generated by a permanent magnet or an electromagnet.

6. An input device for controlling a graphical element on a display, the input device comprising:

- a plurality of sensors for measuring respective components of a magnetic field

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related to an orientation of the input device, and

- a controller for controlling the graphical element on the basis of the plurality of components,

characterised in that the controller includes calculation means for calculating a first signal on the basis of data from at least two of the plurality of sensors, the first signal representing translation movement of the graphical element in a first direction on the display.

7. An input device as claimed in Claim 6, wherein the calculation means are further arranged for calculating a second signal on the basis of data from at least two of the plurality of sensors, at least one of the at least two being different from the at least two sensors for calculating the first signal, the second signal representing translation movement of the graphical element in a second direction on the display.

8. An input device as claimed in Claim 6, further comprising reset means for measuring reference data of the plurality of sensors with respect to the orientation of the input device, and wherein the calculating means are arranged for calculating the first signal on the basis of a difference between current data and the reference data of respective ones of the at least two of the plurality of sensors.

9. An input device as claimed in Claim 6, wherein at least one of the plurality of sensors is an MR (magnetoresistive) sensor.

10. An input device as claimed in Claim 6, wherein two of the plurality of sensors comprise an MR sensor and wherein a third of the plurality of sensors comprises a Hall sensor, the three sensors being manufactured on a single substrate.

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